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(54) MANUFACTURE OF ANTIOXIDANT

(57)Abstract:

PROBLEM TO BE SOLVED: To increase a content rate of neochlorogenic acid and antioxidation activity by treating an aqueous solution containing chlorogenic acid with an alkali.
SOLUTION: A raw material of chlorogenic acid is preferably coffee or sunflower because they are easily available. Crushed seeds of sunflower are extracted with about 5-10 times by weight of water or an alcohol containing water at room temperatures or elevated temperatures. The substance extracted with water is directly treated by use of sodium hydroxide, potassium hydroxide or the like, at room temperatures under pH of 10-12, while the substance extracted with the alcohol is treated in the same way after the content of alcohol is reduced to about not more than 1% by weight by means of distillation or the like. After 3 minutes to 1 hour pH is adjusted to 3-4 by adding a mineral acid such as hydrochloric acid and sulfuric acid or an organic acid such as acetic acid and then condensation is conducted under reduced pressure to produce an antioxidant after isomerization is finished. The ratio of the chlorogenic acid to isochlorogenic acid to neochlorogenic acid is changed from 3-4:1:1 to 1:1:1 by alkali treatment to give highly active antioxidation.

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